NORTEL

Ethernet Routing Switch 8600
Software Release 5.1.1.0

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1. Release Summary

Release Date: 7 August 2009
Purpose: Software maintenance release to address software issues found both in the field and internally.

2. Important Notes before Upgrading to This Release

If upgrading to 5.1.1.0 code within any SMLT designed network from a release prior to 4.1.8.2 or 5.0.1.0, i.e. a release which runs the 'older' SMLT architecture, then care should be taken to follow the proper upgrade steps. Please review the 4.1.8.2 Readme or 5.0.1.0 RN for specific details.

REGARDLESS OF SOFTWARE VERSION BEING USED (4.1.8.X and above), if the SNMP trap target-address is configured to be across the IST, after rebooting the switch this will cause the SNMP timer task to crash right after the appearance of the login prompt, in a repetitive pattern; manual intervention will then be required. To not see this issue it is recommended to configure the SNMP retry count within the snmp-v3 target-address to 0. An example of such a configuration is (see the bolded entry):

Config snmp-v3 target-addr create "NNM" 10.10.10.1:162   "TparamV2" tdomain ipv4_tdomain timeout 1500 **retry 0** taglist informTag mms 484
(Q02052753)

3. Platforms Supported

All Ethernet Routing Switch 8600 modules are supported in the 8006, 8010, and 8010co Chassis. Full slot support for all modules may be dependant on the presence of the High Performance Backplane. There does exist and upgrade option for the HP Backplane.

The following modules are not supported in the 8003 chassis:
- 8692SF/CPU
- All R/RS modules

Please refer to the following documents for details on the Platforms Supported:

- Release Notes for the Ethernet Routing Switch 8600 Series Switch Software Release 5.1.0.0 (Doc # NN46205-402, Rev 3.01)
- Nortel Ethernet Routing Switch 8600 5.1 Upgrade Manual (Doc # NN46205-400, Rev 3.01)
- Nortel Ethernet Routing Switch 8600 Installation - Modules Manual for Software Release 5.1 (Doc # NN46205-304, Rev 3.02)

- Nortel Ethernet Routing Switch 8600 Administration Manual for Software Release 5.1 (Doc # NN46205-605, Rev 2.03)
- Nortel Ethernet Routing Switch 8600 Routine Maintenance Manual for Software Release 5.1 (Doc # NN46205-312, Rev 2.01)

Note: R/RS-series modules are supported in the 8010co chassis only with a High Performance Backplane installed.

4. Notes for Upgrade

Please see Upgrade Guide and Release Notes for the Ethernet Routing Switch 8600 Series Switch Software Release 5.1.0.0 available at www.nortel.com/support.

File Names for This Release

Module or file Type	Description	File name	Size in bytes
Software tar file Tar file of all software	Deliverables (includes images that also contain encryption software)	pr86_5110.tar.gz	59 M
Ethernet Routing Switch images			
Boot monitor image	CPU and switch fabric firmware	p80b5110.img	1.1 M
Run-time image	Run-time image	p80a5110.img	12 M
Run-time image for R modules	Image for R modules	p80j5110.dld	1.4 M
Run-time image for RS modules	Run-time image for RS modules	p80k5110.dld	1.5 M
Run-time image for Enterprise Enhanced SF/CPU Daughter Card (SuperMezz)	Image for the SuperMezz card	p80m5110.img	12 M
3DES	Encryption module for privacy protocol with Secure Shell (SSH)	p80c5110.img	55K
AES	Encryption module for privacy protocol for SNMPv3. Includes AES and 3DES	p80c5110.aes (this image includes the 3DES image)	26 K
MIB	MIB files	p80a5110.mib	4.0 M
MIB (zip file)	Zip file containing MIBs	p80a5110.mib.zip	659 K
MD5 checksum file	md5 checksums of all Release 5.1 software files	p80a5110.md5	1.3 K
Runtime image for ATM	Runtime image for the ATM module	p80t5110.dld	885 K

Runtime image for POS	Runtime image for the POS module	p80p5110.dld	685 K
Firmware images			
FOQ for R modules	Feedback output queuing FPGA firmware	foq267.xsvf	5.1 M
BMC for R modules	BAP memory controller FPGA firmware	bmc776.xsvf	2.5 M
DPC for R modules	Dual port Controller FPGA firmware	dpc184.xsvf	2.5 M
PIM8630GBR	Programmable I/O module FPGA firmware; for the 8630GBR only	PI_769.xsvf	2.2 M
Firmware for RS modules	Contains FOQ, BMC, DPC, mirroring, and loopback images	rs_dpm_fpga.bin	4.3 M
PIM images for RS modules	PIM FPGA firmware required for 8612XLRS module only	pim8612XLRS.bin	59 K
	PIM FPGA firmware required for 8634XGRS module only	pim8634XGRS.bin	76 K
	PIM FPGA firmware required for 8648GBRS module only	pim8648GBRS.bin	78 K
	PIM FPGA firmware required for 8648GTRS module only	pim8648GTRS.bin	53 K
SSL images			
SSL cluster upgrade	Ethernet Routing Switch 8600 clustered SSL modules self-installing runtime image/upgrade	p80s5110.pkg	5.7 M
SSL boot monitor	Ethernet Routing Switch 8600 SSL module boot monitor	p80s5110.img	7.2 M
SSL upgrade instructions	Ethernet Routing Switch 8600 SSL upgrade instructions	p80s5110.upgrade	1.4 K
SSL installation instructions	Ethernet Routing Switch 8600 SSL installation instructions	p80s5110.install	2.8 K
SSL diagnostics	Ethernet Routing Switch 8600 SSL diagnostics	p80s5110.diag	19 M
WSM images for Ethernet Routing Switch 8600			
WebOS firmware image	WSM WebOS v10.0.34.0 firmware image	wsm1003400_mp.img	826 K
WebOS binary	WSM WebOS v10.0.34.0 binary image	wsm1003400_bin.img	1.3 M
WebOS boot image	WSM WebOS v10.0.34.0 boot image	wsm1003400_boot.img	42 K
Device Manager images			
Solaris for SPARC image	Device Manager software image	jdm_6180_solaris_sparc.sh	237 137 138
Microsoft Windows image	Device Manager software image	jdm_6180.exe	213 143 936
Linux image	Device Manager software image	jdm_6180_linux.sh	216 329

			458
Service Delivery Module images			
Service Delivery Module Firewall	Boot ISO for the NSF Service Delivery Module Firewall booting from CD-ROM	NSF5100_2.3.7.0_SDM_R60.iso NSF5100_2.3.7.0_SDM_R65.iso	
	Upgrade package for the NSF Service Delivery Module Firewall	NSF5100_2.3.7.0_SDM_R60.pkg.gz NSF5100_2.3.7.0_SDM_R65.pkg.gz	
Service Delivery Module TPS	Boot image for TPS Intrusion Sensor	Nortel_TPS_Intrusion_Sensor-SDM-v4.5.0-627-Install.iso	
	Boot ISO for TPS Defense Center booting from CD-ROM	NortelTPSDefenseCenter_2x70v4.5.0_627_Install.iso	
	Upgrade script (patch) to upgrade TPS IS from 4.5.0 to 4.5.1.	Nortel_TPS_IS_Upgrade_4.5.0_to_4.5.1_Upgrade-47.sh	
	IS upgrade download verification file.	Nortel_TPS_IS_Upgrade_4.5.0_to_4.5.1_Upgrade-47.sh.md5	
Trace files			
MPLS trace file	Trace file for MPLS. This is auto generated and appears on the PCMCIA after upgrade.	nbpdtrc.lo0	variable

5. Version of Previous Release

Software Version **5.1.0.0**

6. Compatibility

This software release is managed with Java Device Manager (JDM) release 6.1.8.0 or higher.

This software release supports the Web Switching Module (WSM) release WebOS 10.0.34.0. This code is found on Nortel web site under Content Networking -> Web Switches -> Ethernet Routing Switch Web Switch Module.

This software release supports SDM FW Release up to 2.3.7.0. This code is found on Nortel web site under Security & VPN -> Service Delivery Module 8660, which provides a link to CheckPoint web site.

This software release supports SDM TPS Release up to 4.7.0.2. This code is found on Nortel web site under Security & VPN -> Service Delivery Module 8660.

To download any of these code releases requires valid Nortel support web access, as well as valid CheckPoint support site access for most FW code.

7. Changes in This Release

New Features in This Release

With this release, ERS 8600 introduces new commands to better handle receiving bad OSPF LSAs. The Switch will have an option to configure the way the router behaves on receiving a bad LSA. There are now different options on how to handle a received BAD LSA (with hole in mask). This can affect how adjacency is form to other routers in the network. (Q01997413)

The following commands have been implemented for this new functionality:
config ip ospf bad-lsa-ignore <enable|disable>

To enable the Switch to keep accepting the bad LSAs (with hole in mask) use the following CLI command (default behavior is disable):

> **config ip ospf bad-lsa-ignore enable**

Alternatively use the following NNCLI command:

> **bad-lsa-ignore enable**

Other associated NNCLI commands would be:
> **no bad-lsa-ignore [enable]**
> **default bad-lsa-ignore [enable]**

Setting the ospf bad-lsa-ignore parameter to enabled maybe required to maintain adjacency with other non-Nortel switch/routers, especially Cisco models.

The same commands under VRF configuration mode are for CLI:

config ip vrf <vrf-id> ospf bad-lsa-ignore <enable|disable>

and for NNCLI:

> `ip ospf bad-lsa-ignore enable`

as well as:

> `no ip ospf bad-lsa-ignore enable`
> `default ip ospf bad-lsa-ignore [enable]`

To execute these commands OSPF needs to be disabled globally first.
There is no JDM support for these commands at this time.

Old Features Removed From This Release
None.

Problems Resolved in This Release

Switch management

- ERS 8600 will no longer experience VRRP transitions, ping failures or potential OSPF slowdown or failure when there is binary transfer of a file via FTP or TFTP with a file size greater than the free memory available on the flash. ERS 8600 could previously experience these issues while its CPU utilization was high. (Q01978884-02)

- Switch will no longer show system instability on quitting from a SSH session, even if a SSH File Transfer Window is opened from the existing SSH session more than once. However the ERS 8600 still does not support any File Transfers from a SSH session. (Q01856195-03)

- ERS 8600 no longer allows adding a route in net mgmt table, if the same route already exists in the normal routing table (due to some routable VLAN or static configuration). (Q01987429-02)

Platform

- ERS 8600 no longer allows (a guard rail has been added) port mirroring from Legacy Port to GTR/GTRS port in "Rx mode" and "both mode". An invalid port number or failed message will be returned to the user. This operation is allowed for Tx mode only. (Q01790729-02)

- ERS 8600 no longer experiences unexpected Mezz CPU failover with the Mezz card enabled and then saving the configuration via JDM. (Q01981161-01)

- The potential for traffic interruption associated with the Gig ports on the 8634XLRS module has now been resolved. (Q02010160-03)

- ERS 8600 console will now no longer spool repeated messages of AA1419049-E6 (LX) SFP insertion after a switch reboot. (Q01940440-02)

- Link flap detect feature is now supported for R-modules cards. (Q01783494)

IP Unicast

RIP

- For ERS 8600, the set metric parameter in a route-policy will now take effect for RIP. (Q01959361-02)

BFD

- On an ERS 8600 running a BFD session over a static route, when a BFD failure occurs the static route will no longer get learned in the routing table, even when the ARP for next-hop is present until the BFD session gets re-established again. (Q02010174)

BGP

- Operational problems with BGP software that could have led to system instability issues have been resolved. (Q02026274 and Q01972590)

OSPF

- OSPF routes will no longer get improperly deleted even while routes are getting added with ECMP enabled. (Q02021239)

MLT / SMLT

- In RSMLT edge support enabled mode, the creation of a new RSMLT enabled VLAN interface **only on one aggregation box** will no longer cause the static default route to get deleted from the hardware, and thereby affect RSMLT forwarding and re-convergence time. (Q02005454-02)

- In a dual SF/CPU configuration, when the last CP card is pulled out or fails, the RS I/O modules will now have their entire ports drop link automatically. This will help in any SMLT designed network to provide better and faster recovery. (Q01991517-02)

- The ERS 8600 will now check for the SMLT status of an MLT only if it is configured as an SMLT, while sending a MAC-address-learn message for any MAC learnt on the MLT. If the MLT is not configured for SMLT, then SMLT status will not be checked and an MAC-address-learn message will be sent to the IST peer. (Q02036964)

- 8600 will now update the ARP when a MAC learn message is received from IST peer, irrespective of whether the MAC is already existing as local or not. This reduces the chances of improper forwarding in SMLT/RSMLT designed networks. (Q02044582)

Multicast Routing Protocol

PIM

- ERS 8600 will now properly forward packets to the DR when the egress port to the DR is the same as the incoming port and the port to the DR changes for some reason. (Q01907611-04)

8. Outstanding Issues

Please refer to the Outstanding Issues Section of the Release Notes for Ethernet Routing Switch 8600 Software Release 5.1.0.0. Additionally, the following issues will be fixed in a future release.

CR Reference	Description
Q02034692	An MLT with LACP enabled along with min-link configured, may not have ports added to the MLT properly.

Q02056382	While configuring ds-field under "config ip traffic-filter filter <filter-id> match", if we give the six dscp bits, it is taking the command.
Q02047909	While generating the SNMP traps, if source IP used in the snmp sender-ip is NOT circuitless-ip, then trap might not be processed by MDM.

9. Known Limitations

Please refer to the Known Limitations Section of the Release Notes for Ethernet Routing Switch 8600 Software Release 5.1.0.0. Additionally, the following issues have also been classified as operation not to be changed.

CR Reference	Description
Q02049550	"Secret" is no longer the default SNMP community string for read/write access. Instead there is none and it needs to be configured via CLI before SNMP can be used. This has been the operation for some time now, not just introduced with 5.1.1.0 code.
Q01906338-02	Clients may loose connectivity when filters are applied on tagged ports, with default port action of drop. Such a configuration is not supported. Instead use filter configuration of default port action of forward and drop filters.

10. Documentation Corrections

None.